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(54)OLIGONUCLEOTIDE FOR DETECTION OF
BACILLUS THURINGIENSIS AND
DETECTION USING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a new oligonucleotide having a specific nucleic acid sequence, consisting a nucleic acid capable of amplifying a nucleic acid sequence characteristic of Bacillus thuringiensis, and capable of distinguishing the above strain producing insecticidal proteins from other Bacillus and Bacillus anthracis so as to distinguish the above strain.

SOLUTION: This oligonucleotide comprises a nucleic acid sequence obtained from the nucleic acid sequence of the formula and is a new oligonucleotide having at least one site capable of amplifying a nucleic acid sequence characteristic of Bacillus thuringiensis, and can distinguish the above strain from other Bacillus and strains other than Bacillus to identify the above strain, by specifically amplifying gyrB gene of Bacillus thuringiensis, therefore, useful for detection

of Bacillus thuringiensis, etc. This oligonucleotide is obtained by cloning gyrB gene amplified from Bacillus thuringiensis IAM 12077, Bacillus cereus JCM 2152, and Bacillus anthracis, determining their base sequence and selecting a specific base sequence to Bacillus thuringiensis.

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CATCTCTG CGAAATCGA CCGTGGCTT TATTAAGTT CTGCTGTTT GCAGCTGTT 60
GGTCACTG TTTAAATGC CTTATCAACA GAATTAGAG TATTGTACA TGTGATGCG 120
AAATGCAAT ACAGAAATA CGAAGAGCT ATTGGCTTG CAGATTAAA AGTCAGCTG 180

TTAGATAACA TTTATCAAA TGATGAAGT GTACAAATTA TTAGGCGAA TGTGCAAGT 1140
ATTGCTGGG ACTTCATAT CGAAGAGCA CGTATCTATA AGCTATTAT TATGACCGC 1200
GGCAGCTTG AT 1212